

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-26 (Cancelled)

27. (New) Disposable device for surgical operations on the hemorrhoidal artery, comprising:

- a retractor tube, closed and rounded at one its end which is insertable into an anal orifice, the retractor tube being provided upon its side surface with at least a window through which a rectal mucosa can be observed, the retractor tube being also provided with a gripping handle, integral with an external mouth of the retractor tube, through said external mouth being possible to observe said rectal mucosa and to insert in the retractor tube instruments required for the surgical operation;

- a luminous source fixed in removable manner inside the gripping handle, for illuminating said window and the rectal mucosa which appears through the window;

- means for reflecting the light supplied from said luminous source and for allowing said reflected light to illuminate the internal portion of the retractor tube and said lateral window, said reflecting means being located at the level of the conjunction zone of the gripping handle to the external mouth of the retractor tube;

- the retractor tube being provided, in alignment with the exploration window and upstream of said exploration window, with a longitudinal, rectilinear and internal chamber delimited by a baffle which is integral with internal walls of the retractor tube and with a posterior side of the exploration window, so that the chamber results opened toward the external mouth of the retractor tube; the device also comprising an ultrasonic probe, friction-housed in said chamber and partially projecting through an opening longitudinally obtained on a lateral wall of the retractor tube, so that said probe is able to enter in contact with the rectal mucosa.

28. (New) Device according to claim 27, wherein the reflecting means comprise a specular parabola which is placed longitudinally and in a portion raised from the bottom of a tubular channel which connects a hollow portion of the handle with the external mouth of the retractor tube, the specular parabola terminating at the interior of said retractor tube.

29. (New) Device according to claim 28, wherein said tubular channel has at least externally a flat configuration with reinforcements at the sides, in such a manner to increase resistance of the channel to bending and torsion.

30. (New) Device according to claim 28, wherein at least a top portion of the channel which houses the reflection parabola is affixed and fixed upon another portion of the same channel for simplifying the realization and/or the installation of said reflecting parabola.

31. (New) Device according to claim 30, wherein the reflecting parabola is obtained by an electrochemical process of chromium plating of an internal surface of the top and affixed portion of the channel.

32. (New) Device according to claim 30, wherein the top and affixed portion of the channel having the light reflecting parabola is integrally obtained with an upper shell-shaped portion of the gripping handle, said upper shell-shaped portion being designed to be coupled with a lower shell-shaped complementary portion for completing the handle, said lower shell-shaped complementary portion being integral with a longitudinally ribbed and outwardly convex portion of the handle which forms a lower portion of the same channel and which is obtained in an appendix of the retractor tube having a substantially triangular plan, said appendix having sides which are tangent to an external edge of the external mouth of the retractor tube.

33. (New) Device according to claim 32, wherein the connecting zone between said top portion of the channel having the light reflection parabola and the upper shell-shaped portion of the gripping handle presents a step raised toward the handle, the step being designed to be engaged by the thumb of the hand of an operator which grasps the same handle so that the thumb can lean on said step, in such a way to ensure a steady grasp and an easy use of the device.

34. (New) Device according to claim 32, wherein in the connecting portions between the upper and lower shell-shaped portions and the portions of the channel which contain the light reflecting parabola are obtained complementary portions for the formation of a seat in which a disk of transparent material can be housed, said disk being able to divide in a tight manner the channel from a seat of the handle in which is removably housed the luminous source.

35. (New) Device according to claim 34, wherein the transparent small disk is made by a lens which focalizes on the light reflection parabola the light which is supplied by the luminous source.

36. (New) Device according to claim 28, wherein the channel having the light reflection parabola presents an inclination comprised between 30 DEG and 50 DEG with respect to a longitudinal axis of the retractor tube, and wherein the handle presents an inclination comprised between 100 DEG and 120 DEG with respect to said longitudinal axis of the retractor tube.

37. (New) Device according to claim 28, wherein the device is formed with a plastic of

changing white color, for facilitating an internal illumination of the retractor tube and of its lateral window.

38. (New) Device according to claim 32, wherein on a lower portion of the channel having the light reflecting parabola is provided with at least one opening for outwardly discharging organic liquids which come by gravity to said opening and to avoid that such liquids arrive on said disk placed upwardly of the luminous source.

39. (New) Device according to claim 28, wherein the channel having the light reflection parabola presents a recess zone which leaves uncovered an end portion of the luminous source which is placed at a short distance from the said parabola.

40. (New) Device according to claim 27, wherein the exploration window lies on a plane which is substantially parallel to a center line plane of the device and is placed on a side of the retractor tube with respect to a configuration wherein the handle is oriented downwardly.

41. (New) Device according to claim 27, wherein the exploration window lies on a plane which is substantially perpendicular to a center line plane of the device and is placed upwardly with respect to a configuration wherein the handle is oriented downwardly.

42. (New) Device according to claim 27, wherein the exploration window has a distance from the end of the retractor tube which is connected to the external mouth which is comprised between 4 and 7 centimeters.

43. (New) Device according to claim 27, wherein the exploration window lies on a flattened and slightly recessed portion of the lateral wall of the retractor tube which is near to the rounded and closed end of the retractor tube, a rear side of the exploration window being rounded and connected with the lateral surface of said tube by means of an inclined plane, a forward side of the exploration window being rounded and raised and presenting an arcuate shape, for better dispose the anal tissue to the exploration and to the operation through the exploration window.

44. (New) Device according to claim 27, wherein the exploration window is transversally obtained on the retractor tube and interests the retractor tube for about a half of its circumference, a rear side of said exploration window being rounded and connected by means of a wide inclined plane with the lateral surface of said tube, a forward side of the exploration window being rounded too, being lowered with respect to said rear side of the exploration window and being connected to flat portions which extend with a sinuous shape and with a decreasing profile toward the rounded closed end of the retractor tube.

45. (New) Device according to claim 27, wherein it comprises means for receiving and rotatably centering one end of a mandrel which carries a curved needle for the ligation of the haemorrhoidal artery, said receiving and centering means being located inside of the retractor tube under the exploration window, at a short distance from the exploration window and at the level of a center line of said exploration window.

46. (New) Device according to claim 45, wherein said receiving and centering means comprise a rounded section seat, placed parallel to a longitudinal axis of the retractor tube and with a distance from said longitudinal axis of the retractor tube.

47. (New) Device according to claim 46, wherein said rounded section seat has a conical shape and gets narrower toward the rounded closed end of the retractor tube.

48. (New) Device according to claim 27, wherein said longitudinal opening, through which of the ultrasonic probe projects, interests an inclined portion which converges on a posterior wall of the exploration window.

49. (New) Device according to claim 27, wherein the ultrasonic probe is hygienically protected in a sterile, disposable and easily removable sheath, for allowing hygienic re-utilization of the same probe.

50. (New) Device according to claim 27, wherein the side of external mouth of the retractor tube is flattened on the side of the chamber for the housing of the ultrasonic probe and carries appendices designed to removably anchor a cable of the ultrasonic probe.

51. (New) Device according to claim 50, wherein the handle is provided, on the side near to the ultrasonic probe, with appendices designed to removably anchor a further portion of said cable of the ultrasonic probe.